GRAMPAW PETTIBONE

Faith, Hope and—Crash!

An F9F-6 pilot was returning to the field after completing a flight to test the fuel control and complete the aircraft acceptance check. After making a high speed let-down from 40,000 feet to 15,000 feet, he noticed that the RPM was dropping off with the throttle in a fixed position.

The pilot called the tower, stated his condition and declared a deferred emergency. At approximately 10,000 feet, the RPM dropped off to idle so the pilot called for an emergency landing and prepared to make a flame-out approach. At this point we take up the statement of the pilot.

"I hit my initial point over the runway at 8,000 feet, dropped my wheels and flaps, slowed to 165 knots, and followed the prescribed flame-out procedure for the F9F-6. I was in good shape until I hit the 90° position in the pattern at which time I thought I was going to overshoot the runway.

"I adjusted my turn and then turned back to the runway, but I lost too much altitude in the turn and saw I wasn't going to make it. I pulled up my gear and flaps to give me a little more distance to clear the road, cars and gate house. I pulled the throttle around the horn and turned off the switches. I could not tell exactly when I was going to hit the ground as the sun was setting, and it hit me right in the eyes blinding me. The plane came to a stop about a thousand feet short of the runway."

Grampaw Pettibone Says:

Now let's just hold on a minute, bub. I'm not so sure you weren't hit right in the eyes before you took off. It's a lead pipe cinch you were short something, and it wasn't just the runway.

The Board assessed the primary cause of this accident as failure of the fuel control unit, but you and I know it isn't so. In the first place, there is no indication in the accident report that you knew what the specific purpose of the flight was. Had you known, you would probably have switched from primary fuel system to emergency at the first sign of a drop in RPM, and this accident would never have occurred.

On the previous flight, the test pilot reported that the fuel control stayed at 85% after he had made his let-down. A mech turned up the plane to determine the cause of the trouble. He ran the throttle full forward and received only 85% RPM. He then switched from primary to emergency fuel system and the RPM advanced to 101.5%. Switching back to primary, he ran the engine up six times, each time getting 100%, so the aircraft was put back in the "up" condition for your flight.

Son, maybe you thought that what you didn't know wouldn't hurt you. This reminds me of one day on the farm. The farmer said, "You gotta know more than the mule to drive it." There's more truth than poetry to that bit of sagacity, and it's just as applicable to aviation.

What really gets me is how a pilot so obviously inexperienced (516 total hours—72 in type) will take it upon himself to test flight a piece of equipment that has a discrepancy record a mile long and not even bother to find out what to do in case it fails. (Pass me that other Empirin bottle, Andy, I just finished the old one.)

If that young fella hasn't put his hip out of joint from kicking himself in the posterior, I'll bet a plugged nickel he'll divert some of that energy into the proper channels on his next test flight. It's a mighty hard way to have to learn, but we are glad he came out of it as well as he did. Faith and hope are all right on a blind date, but in aviation, LOOK OUT!

Dear Grampaw:

As part of our fighter squadron safety program, the pilots of this unit are urged to "chit" their brothers, should they give evidence of an unsafe or hairy flight procedure, whether it be through misfeasance, malfeasance, or nonfeasance. These chits are then read at Kangaroo Kourt and an appropriate fine is levied by the Judge.

Knowing of your unending interest in flight safety, and having seen poems printed in your column from time to time, I am enclosing one of our recent chits. The incident took place during night FCLP at Cecil Field. The "accused," whose name is not mentioned, was behind the "accuser" in the pattern.

Your Honor, just listen and you shall hear
Of a hairy tale that will bring you fear.
The night was black and the clouds were low.
When out of the gloom came "Cut-out" Joe.

"Check right!" a quavering voice came through
'Twas heard by all on Channel Two.
All heads turned right including mine
A reflex dive and just in time!

Across my bow with nary a zoom
Went "Cut-out" Joe like a witch on a broom.
Did I get shook? I'll put you right,
I did not get a "cut" that night.

To think that guy would cut out a friend
Just pains my heart and hurts my end.
I got in bad with the parachute riggers,
For the holes in the chute were not from chiggers.

Honorable Judge, a charge is in line,
I give you the culprit so now levy the fine.
When flights get that hairy, especially at night,
We young bucks all turn grey from fright.

Yours for safer flying,
————, LCDR, USN

Grampaw Pettibone Says:

Throw the book at him, Judge!

Plan Your Scan

After a routine pre-flight inspection, a pilot of an HO4S-3S departed on a formation tactics flight. Thirty-five minutes later and at an altitude of 900 feet, a sudden loss of power was experienced, followed by a surge, and the engine cut out completely.

The pilot put the helicopter into autorotation and instructed the co-pilot to change gas selector, put mixture into auto-rich and use the primer in order to restart the engine. Re-start was unsuccessful, and the pilot was forced to land in a plowed field where the helicopter sustained "C" damage owing to the fact that the main rotor struck the tail cone.

The fuel gages indicated the same amount of fuel as on take-off, 278 pounds in the rear tank and 300 pounds in the forward tank. The forward tank was empty. The needle was stuck in the 300-pound position.

Grampaw Pettibone Says:

I must say you lads were really cooking without gas. It seems that a couple sets of eyeballs were stuck too—only they were stuck in the 270 position. The prize statement of the accident report was where the pilot said, "All instruments were reading normal when take-off was made. At this time the co-pilot made a check of the gas gages and noted the needles both depressed with the fuel quantity test switch." I'll bet a peso he wishes he could retract that statement.

If the needle on the forward tank had dropped below 300 pounds when the fuel quantity test switch was actuated, it wasn't about to climb back up to 300 pounds and stick there since there couldn't have been more than 200 pounds in the tank to start with. How else could they run out of fuel in 35 minutes of normal formation flying? As a matter of fact 200 pounds at normal fuel consumption would allow about one hour of flight.

It appears to me that some one else is stuck for a share of this accident too, the man who didn't refuel the aircraft before the flight.

But let's assume that there were 300 pounds in each tank. There is a simple system called "scanning" that has been adopted by aviators who never have accidents. They go on the theory that there is only one thing that will keep an aircraft in the air, and that is POWER. By planning a scanning system where at periodic intervals they can, in a second or two, tell that the power gages are reading normal, they can sit back and enjoy each flight without worrying about something unexpected happening. Number one on the list of gages is the fuel gage.

It wouldn't take a POOR scanner longer than 20 minutes to figure that the needle on the gage was stuck, especially if the fuel consumption was 600 pounds an hour. Like the old saying, "It's better to have scanned and lost than never to have scanned at all."

I'm afraid I can't say much for the air start procedure either. He should have put the mixture in idle cut-off, instead of auto-rich, and we might never have heard about this incident. While I'm at it, I'll toss a bouquet of dandelions to the investigating board. They made no mention of either the air start procedure or the low quantity of fuel in the forward tank. As a matter of fact they blamed the accident on the poor old fuel gage needle.

If such a finding is to prevent a recurrence of this sort of thing, my advice is to dispense with fuel gages and use "dip sticks". When not being used for measuring fuel, they can be used for plotting navigation, marking places in radio facilities charts, and slapping pilots on the wrist, when they forget to lower landing gear.

Dear Grampaw:

I would like to know why the check-off lists in all the airplanes aren't arranged the way pilots go over them.

All the pilots I have talked with and flown with go over the check-off list prior to the break at the ship or field. Usually we get every item except hook, wheels, flaps, and prop. In some planes these items are not at the bottom of the list. Someone certainly must have considered putting these items at the bottom of the list; therefore, I would like to know if you think the above procedure is forming a bad habit.

Respectfully,

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Lt. USN

Grampaw Pettibone Says:

Son, you brought up my favorite subject! There are many schools of thought on check-off lists. Some pilots prefer to have the wheels, flaps, and prop first and some prefer to have them last. But in the end it doesn't really make any difference as you have to go over the entire list and make certain each item is completed before turning final. If you go over the check-off list and get all items except three or four prior to the break, then complete those items from MEMORY, you have formed a bad habit. There has been many a wave-off and delay in operations around the carrier due to no hook. I might add that there have been a few no-hook landings too, but then we get off on a tangent.

There is one system that isn't surefire, but it seems rather popular with most pilots. It's called the "Four to go" system. If you have four items to complete after the break, you tell yourself "Four to go" and complete each item as you progress along the landing pattern. Of course, with this system you could conceivably do three and think of the fourth after you land. It would go something like this:

Dilbert said, as he clenched his fist,
"Dad-burn it, I went over the check-off list!
When I hit the break I had four to go,
Mixture rich and prop full low.
Flaps down half, how nice she feels,
And here I am without my wheels!"